



Exercise 5 - Branching, Merging and Pull Requests on GitHub

Objectives

After completing this lab you will be able to:

1. Create a branch
2. Commit changes in the child branch
3. Open a pull request (PR)
4. Merge the PR into the master branch

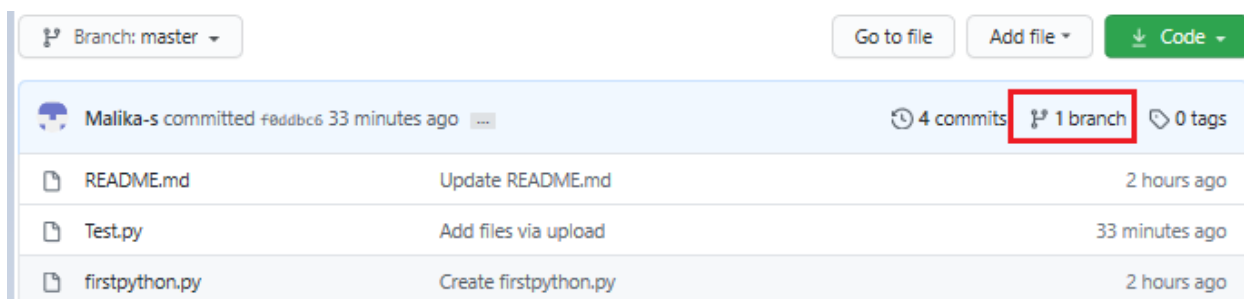
Pre-requisites

This hands-on lab requires you to have already created a GitHub account, and added a project to it, as illustrated in the [previous lab](#)

Exercise 1: Creating a branch

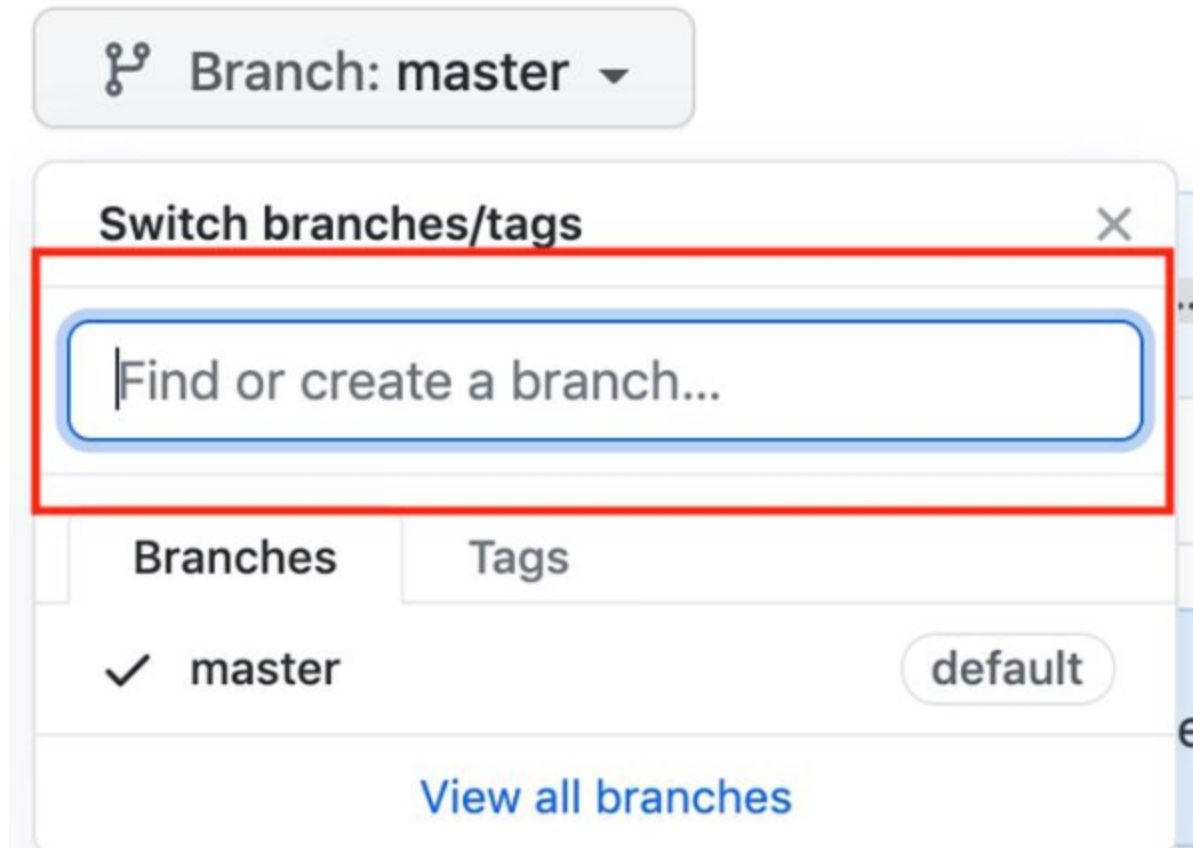
You can create or delete branches directly on GitHub.

Step 1: Currently, there is one branch as shown below:

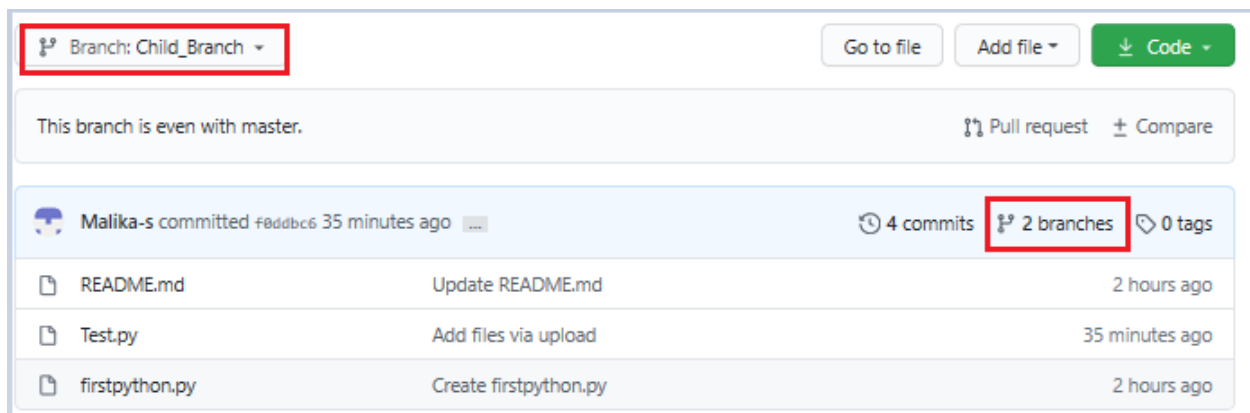


Step 2: On GitHub, navigate to the main page of the repository.

Step 3: Click the **Branch selector** menu. Enter the name of the branch you want to create and press **Enter**.



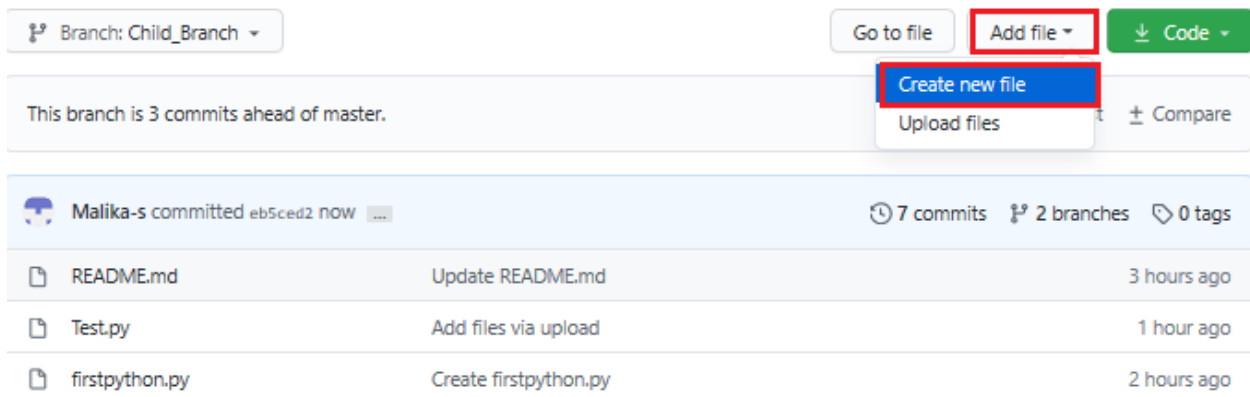
Step 4: Observe that your repository has two branches Master and Child_Branch(check using arrow).



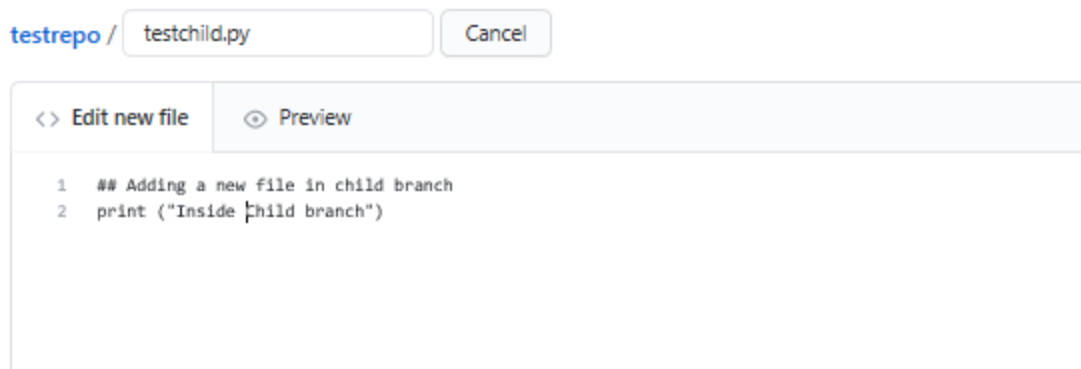
Whatever, is in the master file is copied to the child branch. But when we add a file or edit any file in child branch that will not reflect in the 'Master' branch.

Exercise 2: Adding a file in the Child Branch

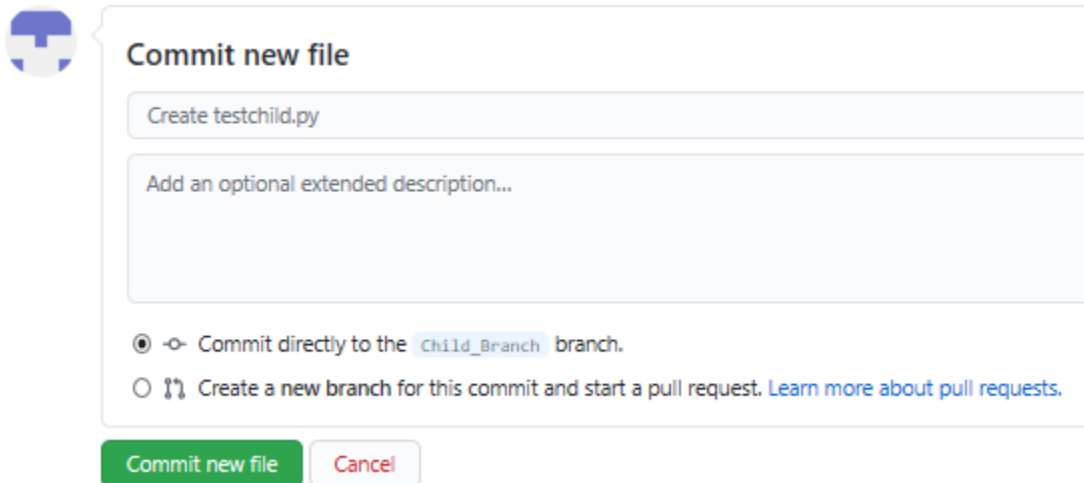
Step 1: Click **Add file** and select **Create New file** to create a file in the repository.



Step 2: Provide the file name and the extension of the file. For example, testchild.py and add the lines.



Step 3: Scroll down the page after adding the text. Add a description of the file (optional) and click Commit new file.



Commit new file

Create testchild.py

Add an optional extended description...

☒ Commit directly to the `Child_Branch` branch.
☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit new file
 Cancel

The file has added to the child branch.

Exercise 3: Open a Pull Request

You can check the master branch now there is no testchild.py file by selecting the **Branch selector** menu.

Branch: master Go to file Add file

Malika-s committed 92fe776 1 minute ago 9 commits 2 branches

README.md	Update README.md	7
Test.py	Add files via upload	5
firstpython.py	Create firstpython.py	7

Or you can also compare the file as shown below with the option given **Compare and pull request**.

Child_Branch had recent pushes less than a minute ago

Compare & pull request

Branch: Child_Branch

Go to file

Add file

Code

This branch is 3 commits ahead of master.

Pull request

Compare

Malika-s committed eb5ced2 3 minutes ago

7 commits

2 branches

0 tags

README.md	Update README.md	3 hours ago
Test.py	Add files via upload	1 hour ago
firstpython.py	Create firstpython.py	2 hours ago
testchild.py	Create testchild.py	3 minutes ago

Step 1: Scroll down the page, you will get 1 file changed

Showing 1 changed file with 2 additions and 0 deletions.

Unified Split

testchild.py

@@ -0,0 +1,2 @@


1 + ## Adding a new file in child branch


2 + print ("Inside Child branch")

Step 2: Scroll up and create a pull request using the option Create Pull request. In the highlight, you can see the arrow which means that you are comparing and creating a pull request. Add the comments (optional) to create a request.

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

 base: master < compare: Child_Branch > ✓ Able to merge. These branches can be automatically merged.




Child branch


Write Preview

H B I ≡ <> ↻ ≡ ≡ ☑ @ ↻ ↶

Want to change in the master branch|

Attach files by dragging & dropping, selecting or pasting them. 



Create pull request ▾

 Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).


Exercise 4: Merge the Pull Request

To accept the pull request, click the **Pull Requests** tab to see a summary of pending pull requests. If you are happy with the changes, click **Merge Pull request** to accept the pull request and perform the merge. You can add a comment if you want.


Child branch #1







 Open Malika-s wants to merge 3 commits into `master` from `Child_Branch` 

Conversation 0 Commits 3 Checks 0 Files changed 1



 Malika-s commented 2 minutes ago Owner 😊 ...


Want to change in the master branch.


 Malika-s added 3 commits 25 minutes ago

-   Create testchild Verified 9767921
-   Delete testchild Verified 48b4479
-   Create testchild.py Verified eb5ced2

Add more commits by pushing to the `Child_Branch` branch on Malika-s/testrepo.

  Continuous integration has not been set up
[GitHub Actions](#) and [several other apps](#) can be used to automatically catch bugs and enforce style.





 This branch has no conflicts with the base branch
Merging can be performed automatically.

Merge pull request  You can also [open this in GitHub Desktop](#) or [view command line instructions](#).

- Once you click Merge Pull request, you will see a button Confirm merge.

Child branch #1

 Open Malika-s wants to merge 3 commits into `master` from `Child_Branch` 

 Conversation 0  Commits 3  Checks 0  Files changed 1



Malika-s commented 4 minutes ago

Owner  ...

Want to change in the master branch.



Malika-s added 3 commits 27 minutes ago



Create testchild

Verified 9767921



Delete testchild

Verified 48b4479



Create testchild.py

Verified eb5ced2

Add more commits by pushing to the `Child_Branch` branch on Malika-s/testrepo.



Merge pull request #1 from Malika-s/Child_Branch

Child branch

Confirm merge

Cancel

Your request has now merged successfully.




Pull request successfully merged and closed


You're all set—the `Child_Branch` branch can be safely deleted.




Delete branch





Now, the child branch has completely merged with the Master branch. You can check the Master branch is having the testchild.py file.

 Branch: master ▾

[Go to file](#) [Add file ▾](#) [Code ▾](#)

 **Malika-s** committed 7a7c576 3 minutes ago [...](#)

 8 commits  2 branches  0 tags

 README.md	Update README.md	3 hours ago
 Test.py	Add files via upload	1 hour ago
 firstpython.py	Create firstpython.py	3 hours ago
 testchild.py	Create testchild.py	21 minutes ago